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Cotton
Division

United States Standards for Fiber Fineness and Maturity of Cotton

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Subpart C - Standards

Official Cotton Standards of the United States for Fiber Fineness and Maturity

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OFFICIAL COTTON STANDARDS OF THE UNITED STATES FOR FIBER FINENESS AND MATURITY

AUTHORITY: Sections 28.601 to 28.603 issued under secs. 6, 10, 42 Stat. 1518, 1519, sec. 4854, 68A Stat. 580; 7 U.S.C. 56, 61, 26 U.S.C. 4854.

SOURCE: Sections 28.601 to 28.603 appear at 30 FR 7239, May 29, 1965, unless otherwise noted.

§28.601 Official cotton standards for fiber fineness and maturity.

The official cotton standards of the United States for fiber fineness and maturity shall be the measure of such qualities, in combination, provided by air flow instrument tests in terms of micronaire readings in accordance with the procedure specified in §28.603.

§28.602 Terms of designations.

The fiber fineness and maturity of any cotton shall be designated by the micronaire reading obtained from an air flow instrument test for a specimen of the cotton as determined under §28.603, e.g., 4.1, 4.2, 4.3, etc. To simplify recording, the decimal point may be omitted, and the micronaire reading recorded as 41,42,43, etc.

§28.603 Procedures for air flow tests of micronaire reading.

In determining in terms of micronaire readings, the fiber fineness and maturity, in combination, of cotton, the following procedures shall apply:

(a) Facilities and equipment shall include:

(1) Air flow instrument complete with accessories to measure the fineness and maturity, in combination, of cotton in terms of micronaire reading on the curvilinear scale adopted in September 1950 by the Department of Agriculture, or its equivalent.

(2) A suitable supply of compressed air filtered to remove moisture and other impurities.

(3) Balance or scales suitable for accurately weighing the specimens required for the particular instrument.

(4) International Calibration Cotton Standards with established micronaire reading values for calibration of the air flow instrument.

(b) The instrument shall be calibrated each day before routine testing begins, as follows:

(1) The air shall be allowed to flow through the instrument until the indicator stabilizes.

(2) Specimens from at least two of the calibration cottons shall be tested to insure proper calibration of the instrument. The instrument shall be considered in calibration if the values obtained on the test specimens agree with the established values of the calibration cottons

within 0.1 micronaire reading.

(c) Testing of the cotton specimen shall be performed as follows:

(1) Approximately the same amount of cotton shall be taken from each side of the sample for a test specimen. The weight of the test specimen shall be that weight prescribed for the air flow instrument being used.

(2) The weighed specimen shall be tested in a properly calibrated instrument.

(3) The specimen shall be inserted into the specimen holder of the instrument so that the mass of fibers is well distributed within the specimen holder.

(4) The air shall then be allowed to flow through the specimen in accordance with the method of operation of the instrument.

(5) The position of the instrument indicator shall be determined to the nearest 0.1 micronaire reading when it becomes stable.

(d) The accuracy of the instrument shall be checked at least every 2 hours during operation by testing appropriate calibration cottons. If the value obtained on a specimen from the calibration cotton is outside the established limits of 0.1 micronaire reading, or when successive readings show the results to be within the established limits, but consistently high or low, the instrument and technique shall be thoroughly checked to remedy the discrepancies. Additional tests using calibration cottons shall be made until acceptable results are obtained before routine testing is resumed.